REMARKS

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "Version with markings to show changes made."

In response to the Restriction Requirement, Applicants hereby elect the claims of Group I (including claims 1 and 17-18), drawn to polypeptides and compositions of the invention, with traverse.

Claims directed to methods of making the claimed polypeptides (i.e., claims 9 and 10), to methods of using the claimed polypeptides for screening (i.e., claims 20 and 62-64), to methods of using the claimed polypeptides for producing antibodies (i.e., claims 65 and 66), to methods of detecting the claimed polypeptides (i.e., claim 67), and to methods of purifying the claimed polypeptides (i.e., claim 68), could and should be examined together with the product claims from which they depend, per the Commissioner's Notice in the Official Gazette of March 26, 1996, entitled "Guidance on Treatment of Product and Process Claims in light of *In re Ochiai, In re Brouwer* and 35 U.S.C. § 103(b)" which sets forth the rules, upon allowance of product claims, for rejoinder of process claims covering the same scope of products. Applicants presume these method claims will be rejoined, upon determining allowability of the product claims from which they depend.

It is also submitted that claim 3, drawn to polynucleotides of the invention, could be examined along with the polypeptide claims without undue burden on the Examiner. A search for prior art to determine the novelty of the polypeptides would substantially overlap with a search of the prior art to determine the novelty of the polynucleotides which encode the polypeptides.

Applicants reserve the right to prosecute non-elected subject matter in subsequent divisional applications.

If the Examiner contemplates other action, or if a telephone conference would expedite allowance of the claims, Applicants invite the Examiner to contact the undersigned at (650) 621-8581.

Applicants believe that no fee is due with this communication. However, if the USPTO determines that a fee is due, the Commissioner is hereby authorized to charge Deposit Account No. **09-0108**.

Respectfully submitted,

INCYTE GENOMICS, INC.

Date: Feb 14, 2003.

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Limited Recognition (37 C.F.R. § 10.9(b)) attached
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION

The paragraph immediately following the title has been amended as follows:

This application is a continuation application of U.S. application Serial Number 09/391,475, filed September 8, 1999, entitled MITOCHONDRIAL ADENYLATE KINASE, which is a divisional application of U.S. application Serial Number 09/225,366, filed January 4, 1999, now U.S. Patent No. 6,001,624, issued December 14, 1999, entitled [NOVEL] MITOCHONDRIAL ADENYLATE KINASE, which is a divisional application of U.S. application Serial Number 08/829,027, filed March 31, 1997, now U.S. Patent No. 5,856,160, issued January 5, 1999, entitled [NOVEL] MITOCHONDRIAL ADENYLATE KINASE, all of which applications and patents are hereby expressly incorporated by reference.

IN THE CLAIMS

Claims 2, 4-8, 11-16, and 19 have been canceled, without prejudice or disclaimer.

Claim 1 has been amended as follows:

1. (Once Amended) An isolated polypeptide [comprising an amino acid sequence] selected from the group consisting of:

a) a polypeptide comprising [an] the amino acid sequence of SEQ ID NO:1,

b) a [naturally occurring] polypeptide comprising [an] a naturally occurring amino acid sequence at least [90%] 95% identical to [an] the amino acid sequence of SEQ ID NO:1, wherein the polypeptide has adenylate kinase activity, and

c) a [biologically active] fragment of a polypeptide having [an] the amino acid sequence of SEQ ID NO:1, wherein the fragment has adenylate kinase activity, and wherein the fragment comprises residues R6 through V23 of SEQ ID NO:1

[d) an immunogenic fragment of a polypeptide having an amino acid sequence of SEQ ID NO:1].

New claims 56-68 have been added as follows:

56. (New) An isolated polypeptide comprising the amino acid sequence of SEQ ID NO:1.

57. (New) An isolated polypeptide of claim 1, wherein the polypeptide comprises a naturally occurring amino acid sequence at least 95% identical to the amino acid sequence of SEQ ID NO:1, and wherein the polypeptide has adenylate kinase activity.

58. (New) An isolated polypeptide of claim 1, wherein the polypeptide is a fragment of a polypeptide having the amino acid sequence of SEQ ID NO:1, and wherein the polypeptide has adenylate kinase activity, and wherein the polypeptide comprises residues R6 through V23 of SEQ ID NO:1.

59. (New) A composition comprising the polypeptide of claim 56 and a pharmaceutically acceptable excipient.

60. (New) A composition comprising the polypeptide of claim 57 and a pharmaceutically acceptable excipient.

61. (New) A composition comprising the polypeptide of claim 58 and a pharmaceutically acceptable excipient.

62. (New) A method of screening a compound for effectiveness as an antagonist of a polypeptide of claim 1, the method comprising:

a) exposing a sample comprising a polypeptide of claim 1 to a compound, and

b) detecting antagonist activity in the sample.

63. (New) A method of screening for a compound that specifically binds to the polypeptide of claim 1, the method comprising:

a) combining the polypeptide of claim 1 with at least one test compound under suitable conditions, and

b) detecting binding of the polypeptide of claim 1 to the test compound, thereby identifying a compound that specifically binds to the polypeptide of claim 1.

64. (New) A method of screening for a compound that modulates the activity of the polypeptide of claim 1, the method comprising:

a) combining the polypeptide of claim 1 with at least one test compound under conditions permissive for the activity of the polypeptide of claim 1,

b) assessing the activity of the polypeptide of claim 1 in the presence of the test compound, and

c) comparing the activity of the polypeptide of claim 1 in the presence of the test compound with the activity of the polypeptide of claim 1 in the absence of the test compound, wherein a change in the activity of the polypeptide of claim 1 in the presence of the test compound is indicative of a compound that modulates the activity of the polypeptide of claim 1.

65. (New) A method of preparing a polyclonal antibody which specifically binds to the polypeptide of claim 1, the method comprising:

a) immunizing an animal with a polypeptide consisting of the amino acid sequence of SEQ ID NO:1, or an immunogenic fragment thereof, under conditions to elicit an antibody response,

b) isolating antibodies from the animal, and

c) screening the isolated antibodies with the polypeptide of claim 1, thereby identifying a polyclonal antibody which specifically binds to the polypeptide of claim 1.

66. (New) A method of making a monoclonal antibody which specifically binds to the polypeptide of claim 1, the method comprising:

a) immunizing an animal with a polypeptide consisting of the amino acid sequence of SEQ ID NO:1, or an immunogenic fragment thereof, under conditions to elicit an antibody response,

b) isolating antibody producing cells from the animal,

c) fusing the antibody producing cells with immortalized cells to form monoclonal antibody-producing hybridoma cells,

d) culturing the hybridoma cells, and

e) isolating from the culture monoclonal antibody which specifically binds to the polypeptide of claim 1.

67. (New) A method of detecting the polypeptide of claim 1 in a sample, the method comprising:

a) incubating an antibody which specifically binds to the polypeptide of claim 1 with the sample under conditions to allow specific binding of the antibody and the polypeptide, and

b) detecting specific binding, wherein specific binding indicates the presence of the polypeptide of claim 1 in the sample.

68. (New) A method of purifying the polypeptide of claim 1 from a sample, the method comprising:

a) incubating an antibody which specifically binds to the polypeptide of claim 1 with the sample under conditions to allow specific binding of the antibody and the polypeptide, and

b) separating the antibody from the sample and obtaining the purified polypeptide of claim 1.